THE MINISTER OF POWER (SHRI SUSHILKUMAR SHINDE): (a) to (c) Yes, Sir. During the course of the XI Plan, capacity addition of 78,577 MW has been envisaged. To deliver this capacity, in hydro segment 53 power projects/stations comprising of 180 units aggregating 16,553 MW, in thermal segment 95 power projects/stations comprising of 155 units aggregating 58,644 MW and in nuclear segment 4 power projects/stations comprising of 7 units aggregating 3380 MW have been identified.

According to the National Electricity Plan (NEP), for the projected capacity addition, fuel requirement by the end of XI Plan would be as under:

Fuel	Requirement (Tentative) during 2011 -12
Coal	550 MT
Lignite	33 MT
Gas/LNG	89 MMSCMD

Furthermore, NEP has, *inter-alia,* also assessed the total manpower requirement during the 11th Plan. According to NEP, the additional manpower required during the 11th Plan works out to about 3.61 lakh, comprising of about 2.76 lakh technical and about 85,000 non technical manpower. These estimates do not include persons employed in civil construction works of power plants/networks.

Utilization of installed power generation capacity

†135. SHRI RAJ MOHINDER SINGH MAJITHA:

DR. MURLI MANOHAR JOSHI:

Will the Minister of POWER be pleased to state:

(a) whether it is a fact that actual power generation in the power generating units in the country is less than their installed capacity;

(b) if so, the percentage of generation capacity utilized to generate power, on an average, on national level separately in thermal, hydel and nuclear power projects during 2004-05 and 2006-07; and

(c) how much generation capacity is assessed in terms of prescribed norms?

THE MINISTER OF POWER (SHRI SUSHILKUMAR SHINDE): (a) The actual power generation happens to be less than the installed capacity of power projects as some of the generating units remain out of service due to planned maintenance works, forced outage, etc. The actual power generation from the available generating units also depends on age, design of generating units, operation & maintenance practices adopted, availability of the required quality and quantity of fuel, availability of water in the rivers (for hydro stations) and system conditions.

(b) The Plant Load Factor (PLF) of a generating unit is an important indicator of the utilization of generation capacity of thermal and nuclear power stations. On the other hand, the utilization of installed capacity of hydro power station depends on inflow of water in the rivers (which in turn depends on rainfall and snowmelt), irrigation requirements and availability of generating units at the power stations.

†Original notice of the question was received in Hindi.

Details of targets and actual PLF of Thermal and Nuclear Power Stations and the availability of machines for hydro power plants for the year 2004-05 and 2006-07 are given below:

Year	Thermal		Nuclear		Hydro
	Target PLF (%)	Actual PLF (%)	Target PLF (%)	Actual PLF (%)	availability (%)
2004-05	73.4	74.8	64.8	70.7	89.85
2006-07	76.3	76.8	59.7	57.5	89.32

(c) Assessment of generation capacity is made for the year ahead, keeping in view factors like the requirement of planned maintenance, allowance for forced outages, availability of fuel, commissioning programme and stabilization period for the new generating stations etc. For the year 2007-08, a generation target of 710 Billion Unit (BU) has been approved, comprising 572.2 BU from thermal stations (76.8% Average PLF), 22.7 BU for nuclear stations (60.2% PLF), 109.5 BU for hydro stations and 5.6 BU through import from Bhutan.

Bidding for UMPPs

136. SHRIMATI SHOBHANA BHARTIA: Will the Minister of POWER be pleased to state:

(a) whether Government have set right the loopholes encountered in the bidding process for the first set of Ultra Mega Power Projects (UMPPs) and are hopefuel of putting the generation capacity addition on fast track through execution of a slew of these 4,000 MW projects;

(b) whether Government have also added yet another UMPP in the list of proposed 4,000 MW projects already being executed, thereby bringing the total to 10 projects;

(c) whether Government are hopeful to achieve the 78,579 MW power additional target in the current Five Year Plan; and

(d) if so, to what extent these steps have improved the situation?

THE MINISTER OF POWER (SHRI SUSHILKUMAR SHINDE): (a) The bidding process for the Ultra Mega Power Projects (UMPPs) is carried out *inter-alia* on the basis of the Standard Bid Documents (SBDs), based on which project specific bidding documents are prepared. The SBDs have been amended six times since their issuance on 31st March, 2006. These amendments were issued on 18th May, 2006, 21stAugust, 2006, 22nd September, 2006, 31st January, 2007,21st September, 2007 and on 12th November, 2007, keeping in view the feed back received from various stake holders and the experience gained during the course of implementation of the first set of the UMPPs.

(b) Under the UMPP initiative launched by the Ministry of Power, the Central Electricity Authority had identified nine sites in different States for setting up the UMPPs. Taking up of projects is *inter-alia* dependent upon the suitability of the site and requisite clearances being made available by the concerned State Governments. While clearances are awaited for the initially identified sites in Karnataka and Tamil Nadu, recently requests have been received from these States for examining the possibility of setting up of an additional UMPP each in these States.

(c) and (d) While the full benefits from the UMPPs will be available during the 12lh Plan period, during the 1 l'.h Plan, a capacity addition of 78,577 MW has been envisaged. This